



# FotonShield MPO-LC Cassette, 24F with 2Nos. of 12F MPO (Male) Low Loss - 12 x LC/UPC, MM OM5



## Applicable Standards

- IEC 61754-7 (MPO Connector)
- IEC 61754-20 (LC)
- IEC 61300-3-35 (End-Face Cleanliness)
- RoHS and REACH

## Product Part Number

N172.MP012x2LCU4A

## Product Description

The **FotonShield MPO-LC Cassette** is a high-density fiber optic module designed for next-generation data centers, cloud computing, and high-speed structured cabling networks. This cassette features **two 12F MPO (Male) low-loss connectors**, supporting **two 12-fiber MPO trunk cables**, and provides **two 12 x LC/UPC ports** for structured fiber breakout. Built with **OM5 multimode fiber** (50/125µm, WBMMF - Wideband Multimode Fiber), this cassette supports extended reach and higher bandwidth for 10G, 40G, 100G, and emerging 400G Ethernet applications. OM5 fiber enables shortwave wavelength division multiplexing (SWDM) technology, reducing fiber count requirements while optimizing transmission efficiency. The **UL-94 V0 flame-retardant ABS + PC** housing ensures durability, impact resistance, and fire safety compliance, making it an ideal solution for high-speed optical networks.

## Product Features

- **Dual 12F MPO (Male) Low-Loss Connectivity :** Supports two 12-fiber MPO trunk cables, optimizing high-speed optical transmission.
- **Two 12 x LC/UPC Ports for Breakout :** Provides a structured, high-density fiber termination solution with low insertion loss.
- **OM5 Wideband Multimode Fiber (50/125µm) :** Optimized for SWDM technology, supporting 10G/40G/100G/400G Ethernet applications.
- **Polarity A (Straight-Through Configuration) :** Ensures proper alignment in structured cabling environments.
- **UL-94 V0 Flame-Retardant ABS + PC Housing :** High durability, impact resistance, and enhanced fire safety.
- **Plug-and-Play Modular Design :** Enables fast and easy deployment in high-density rack-mount environments.



## Material Specifications

Type	MPO-LC Cassette (with 2 Nos. of 12F MPO Low Loss - 12 x LC/UPC)
Fiber Type	Multimode OM5 (50/125µm, WBMMF)
LC Connector	Insertion Loss : <0.25 dB, Return Loss: UPC ≥35dB
MPO (Elite) Connector	Insertion Loss : <0.35 dB, Return Loss : UPC ≥35dB
Adapter Type	Duplex LC/UPC
Polarity	Type A (Straight-Through)
Housing Material	ABS + PC (UL-94 V0 Flame-Retardant)
Application	Data Centers, Enterprise Networks, High-Density Fiber Distribution, 10G/40G/100G/400G Ethernet, SWDM Applications

## Environmental Specifications

Operating Temperature Range	- 20°C to 70°C
Storage Temperature Range	- 20°C to 70°C

## Ordering Information

N172.MPO12x2LCU4A	FotonShield MPO-LC Cassette, 24F with 2Nos. of 12F MPO (Male) Low Loss - 12 x LC/UPC, MM OM5
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